

BP

(1)

104(e) issued 4/12/88

Prod

zinc

phosphorus

sulfur

Chlorine

alkyl zinc dithiophosphate/
Calcium petroleum sulfonate
antiwear/antioxidant
& paraffin waxy alkylated
naphthalene flow improve

lots of prod made

ORIGINAL

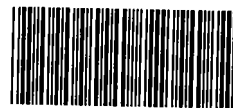
104(e) resp 5/11/88

"empty" drums w/ residue

Exhibit 1
Compounding +
Pkg Plant Inventory

a. oil

b. lube oil additives referred to as
"Chemical"



SEMS DocID

2246716

18,700 empty, unwashed 55gal fr 8/84 - 1/88 to Metro

e.g.

invent.

Vanellus C-extra 10W/30 and 15 W/40

↓
solvent refined paraffinic base oil blend.

25% additives → ethylene-propylene copolymer

viscosity index improver, alkylated naphthalene

pour depressant, methacrylate copolymer

flow improver & detergent/dispersant/antioxidant

Pkg containing Calcium petroleum sulfonate, etc...

magnesium petroleum phenate, alkyl zinc

dithiophosphate & N-substituted alkenyl
succinimide.

zinc, phosphorus, sulfur, Ca, mg & Nitrogen

items w/ same "blind Code" share a common
MSDS

Invoice 329933

"Dirty" Lube Drum

11

Chem 11

11

Scrap 11

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA) 800-424-9300

BY OIL INDUSTRY

Midland Building
Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Hydraulic transmission fluid, torque converter fluid for mobile and stationary equipment, Type C-3 fluid

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

MOL. WT.: Mixture

COMPOSITION: Contains 96% solvent-refined petroleum lubricant base stocks plus 4% of an additive package containing alkyl zinc dithiophosphate/calcium petroleum sulfonate antiwear/antioxidant and paraffin wax alkylated naphthalene flow improver. The package contributes not more than 0.07 wt.% zinc, 0.35% calcium, 0.06% phosphorus, and 0.25% sulfur to the product.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/M³ TLV (8-hour time-weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes, holding eyelids apart and away from eyeball. Remove contact lenses to assure thorough flushing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, GET PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 650°F

POUR PT.: -30°F

VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: 0.875

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Red colored, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 430°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (non-volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur oxides from combustion. Reactive volatile hydrocarbons, traces of hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing. Discard oil soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

ORIGINAL

REVISION DATE: 8/23/82

REPLACING DATE OF: Undated OSHA-20 sheet

PRODUCT CODES: P 3604

REVIEWED BY: P/R/W/M/ECP/RAR/CMS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

01100

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

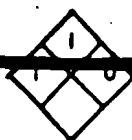
BORON OIL COMPANY

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

NFPA



CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (24Hr) 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil blend plus lard oil, sulfur, sulfurized mixed chain fatty acid/esters, and chlorinated paraffin anti-weld, anti-wear, extreme pressure additive. The blended oil typically contains 2.1% total sulfur, 1.5% active sulfur, and 0.5% chlorine.

STATEMENT OF HEALTH HAZARD

~~HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.~~

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8-hour time-weighted average exposure; OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eye-ball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 600°F

POUR PT.: -10°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.929

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 350°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers.

Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur dioxide and acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide and hydrogen chloride from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 8/4/83

REPLACING DATE OF: 1/13/83

PRODUCT CODES: P 3182

REVIEWED BY: /PJF/NDM/ECP/RAR/QWS/WJW/SMD

APPROVED: [Signature]

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (OMA) 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Outboard motor oil, two-cycle air-cooled engine oil, snowmobile oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oils plus an ashless succinimide detergent-dispersant additive blended to SAE 40 viscosity grade and diluted with minor amount of clean burning heavy petroleum naphtha to promote easy mixing with fuel. The product contains no metals and the sulfated ash is nil.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/M³ TLV (8-hour time-weighted average exposure; OSHA 29 CFR 1910.1000, Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 320°F

PUR PT.: -35°F

VAPOR PRESSURE: @ 20°C: 1 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.868

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: approx. 10%

EVAPORATION RATE (Water=1): Slower

APPEARANCE AND ODOR: Clear light brown fluid liquid with mild "gasoline" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-56) 130°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: LEL: 1% UEL: 7% (vapors of diluent naphtha)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class II Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.155).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers subjected to extreme heat may rupture with explosive violence. Plastic containers may melt from heat, releasing combustible contents. Packaged product is in polyethylene containers which will burn cleanly.

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: ~~Contact with strong oxidizers (peroxides, chlorates, oxoacids, organic acids), extreme heat or sources of ignition.~~

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: Combustible Liquid

PROPER SHIPPING NAME: Combustible Liquid N.O.S. NA 1993 (Petroleum Lubricating Oil)

PLACARD: None (packaged product)

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: NA 1993

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

ORIGINAL

REVISION DATE: 8/2/82
REPLACING DATE OF: 5/26/82
PRODUCT CODES: P 9486

ALTERNATIVE TO OSHA-20 FORM
00380

REVIEWED BY: P/JF/MDH/ECP/BAR/CNS/WJW/SMD
APPROVED: 
TITLE: Product Safety Coordinator

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

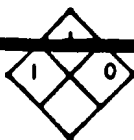
~~BORON OIL COMPANY~~

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

NFPA



CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA) 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil meeting Mack EO-K requirements

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend containing approximately 25% additives which include an ethylenepropylene copolymer viscosity index improver, alkylated naphthalene pour depressant, methacrylate copolymer flow improver, and detergent/dispersant/antioxidant package containing calcium petroleum sulfonate, magnesium petroleum phenate, alkyl zinc dithiophosphate, and N-substituted alkenyl succinimide. The blended oil contains no more than 0.2% zinc, 0.2% phosphorus, 0.6% sulfur, 0.4% calcium, 0.1% magnesium, and 0.1% nitrogen.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8-hour time-weighted average exposure). (OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.

EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes, holding eyelids apart and away from eyeball; remove contact lenses. Skin: wash thoroughly with soap and water. Change all contaminated clothing. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: 0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.876 to 0.893

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark red, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 410°F (10W30); 440°F (15W40)

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire to avoid spreading. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated solid absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

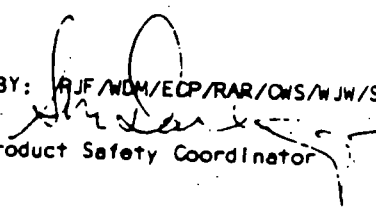
REVISION DATE: 6/17/83

REPLACING DATE OF: 11/9/82

PRODUCT CODES: P 3544, P 3558 (10W30)
P 3580, P 3586 (15W40)

ALTERNATIVE TO OSHA-20 FORM

0181D

REVIEWED BY: RJF/NDM/ECP/RAR/QWS/WJW/SMD
APPROVED: 
TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
800-424-9300

CHEMICAL NAME: Petroleum Oil

SYNONYMS: Railroad Diesel Engine Oil

CHEMICAL FAMILY: Hydrocarbons

COMPOSITION: Solvent refined paraffinic and naphthenic coastal base oil blend plus an alkaline detergent-corrosion inhibitor, an ashless dispersant, and a polymeric methacrylate flow improver. The blended oil contains not over 0.4% calcium (maximum 1.2 wt.% sulfated ash), and less than 10 ppm zinc.

DESCRIPTION

CAS REGISTRY NO.: Mixture

FORMULA: Refined petroleum oil plus additives

HAZARD DESCRIPTION: No acute effects from moderate contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

STATEMENT OF HEALTH HAZARD

EXPOSURE LIMITS: Oil mist: 5 mg/M³ TLV (8-hour time-weighted average exposure: OSHA 29 CFR 1910.1000, Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (initial) 560°F

VAPOR PRESSURE: @ 100°F: less than 1 mm Hg

SPECIFIC GRAVITY: @ 60°F: 0.910

PERCENT VOLATILE: 0%

APPEARANCE AND ODOR: Clear dark colored liquid with faint petroleum odor.

POUR PT.: 5°F

VAPOR DENSITY (Air=1): Heavier than air

SOLUBILITY IN WATER: Negligible

EVAPORATION RATE (Water=1): Very slow

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 460°F

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

AUTOIGNITION TEMP.: Not known

ORIGINAL
(300)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

~~CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.~~

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

~~RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

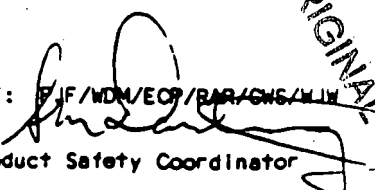
IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA 311(b)(3)).

REVISION DATE: 5/26/82
REPLACING DATE OF: New Issue
PRODUCT CODES: P 3460

ALTERNATIVE TO OSHA-20 FORM
00370

REVIEWED BY: FIF/MDM/ECF/BAR/GNS/MLH
APPROVED: 
TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.
Midland Building
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300 ORIGINAL

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives
COMPOSITION: Hydrogen treated naphthenic coastal base oil plus lard oil, sulfur, methyl oleate, polyisobutylene, and chlorinated paraffin extreme pressure additive. The blended oil contains not more than 3.0% free and combined sulfur and 3.0% chlorine.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 550°F
VAPOR PRESSURE: @ 100°F: Negligible
SPECIFIC GRAVITY: @ 60°F: 0.924
PERCENT VOLATILE: @ 100°F: 0%
APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

POUR PT.: -25°F
VAPOR DENSITY (Air=1): Heavier
SOLUBILITY IN WATER: Negligible
EVAPORATION RATE (Water=1): Very slow

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 315°F AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Fumes from fire may contain irritating sulfur oxides, corrosive hydrogen chloride, and traces of toxic phosgene (carbonyl chloride).

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides and acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide and hydrochloric acid from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

PIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 1/12/82

REPLACING DATE OF: 12/75 OSHA-20

PRODUCT CODES: P 3111

REVIEWED BY: RJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.
Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

From within Ohio: 800-362-8059
From outside Ohio: 800-321-8642
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum oil plus additives CAS REGISTRY NO.: Mixture
SYNONYMS: Metalworking oil, Emulsifiable oil, Soluble oil
CHEMICAL FAMILY: Petroleum product FORMULA: Mixture MOL. WT.: Mixture
COMPOSITION: Contains light clay-treated, dewaxed and heavy naphthenic base oils plus 12% balanced emulsifier containing sodium petroleum sulfonate, organic amines and glycols. Contains no chlorine.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: Concentrated product may have drying effect on skin, may be temporarily irritating to eyes, and may sensitize some individuals. The water emulsion will produce no skin effects from minimum casual contact, but viscosity is low and care should be taken to avoid eye contact or inhalation from excessive misting. Contamination during use, including rancidity from poor housekeeping, may introduce extraneous causes of irritancy.

EXPOSURE LIMITS: OSHA 8-hour time-weighted average limit in air: oil mist: 5 mg/M³ (29 CFR 1910.1000, Table Z-1).

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation and lesions. Allergic reaction may occur with a few individuals. Product is designed for use diluted with 15 to 100 parts water, which will minimize effects.

EMERGENCY AID: If eyes are involved flush 15 minutes with copious water. Remove contaminated clothing and wash contacted areas with mild soap and water. Use emollient cream if needed. If swallowed, do not induce vomiting because of risk of aspiration. If breathing difficulty occurs after spontaneous vomiting see physician immediately. Petroleum oils in lungs may cause serious pneumonitis. Discard oil-soaked leather goods. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially in an unconscious person.

PHYSICAL DATA

BOILING PT.: Initial: 550°F
VAPOR PRESSURE: at 100°F: Negligible
SPECIFIC GRAVITY: at 60°F: 0.91-0.92
PERCENT VOLATILE: at 100°F: 0%
APPEARANCE AND ODOR: Dark clear viscous liquid (54 cSt at 100°F). Forms opaque white emulsion in water.

FREEZING PT.: Pour pt. 10°F
VAPOR DENSITY (Air=1): No vapor
SOLUBILITY IN WATER: Emulsifies
EVAPORATION RATE (Water=1): Negligible

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 325°F (ASTM D-92)
FLAMMABLE LIMITS IN AIR: Not pertinent (low volatility)
EXTINGUISHING MEDIA: Foam, CO₂, Dry Chemicals, Water Fog
SPECIAL FIRE-FIGHTING PROCEDURES: Do not direct water directly into fire to avoid foaming and spreading. Use water to cool threatened surroundings. Avoid breathing fumes. Use self-contained air supply if needed.
UNUSUAL FIRE AND EXPLOSION HAZARDS: No explosion hazard. Fight as for any petroleum oil fire.

AUTOIGNITION TEMP.: Unknown

CHEMICAL REACTIVITY

STABILITY: Stable to heat. Emulsion may be harmed by contamination or improper mixing with water. ~~Reactive with chemical oxidizers.~~

CONDITIONS TO AVOID: Contact with strong oxidizing agents (peroxides, chlorine, oxygen under pressure), or strong acids which will destroy emulsion.

HAZARDOUS DECOMPOSITION PRODUCTS: Reactive hydrocarbon gases; carbon monoxide from combustion.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Remove sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system or dispose of liquid and contaminated absorbent and diking material in landfill in compliance with federal, state, and local regulations.

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control any mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination.

WORKPLACE: Observe TLV limit for oil mist. Do not add sodium nitrite or nitrate to emulsion as added anti-rust. The reaction of nitrite with amines may result in the formation of nitroso-amines, which are potential human carcinogens. Practice good housekeeping to avoid emulsions turning rancid in use. Clean up spills. Oily spots can be slippery.

DISPOSAL: Used product is likely to be in the form of dilute emulsion. This may be collected and treated to break the emulsion. The oil phase can be skimmed and deposited in the waste oil system. The aqueous phase may be diverted to biotreatment in private or municipal secondary treatment plant.

PERSONAL: Practice good personal hygiene. Do not continue to wear oil-contaminated clothing or carry oil-soaked rags. Avoid breathing oil mist.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 1/11/82

REPLACING DATE OF: 6/8/81

PRODUCT CODES: P 3824

REVIEWED BY: CWS/RAR/ECF/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ORIGINAL

ALTERNATIVE TO OSHA-20 FORM

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil plus sulfur and sulfurized mixed chain fatty acid/esters anti-weld/anti-wear additive. The oil contains not more than 6% total sulfur and 2.0% active sulfur.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 570°F

POUR PT.: 10°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.942

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 355°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

~~**HAZARDOUS DECOMPOSITION PRODUCTS:**~~ Carbon monoxide, carbon dioxide, trace sulfur oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: ~~Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3185 3185

REVIEWED BY: POF/MDM/ECF/RAR/CWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.
Midland Building
Cleveland, OHIO 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil
CHEMICAL FAMILY: Hydrocarbons
COMPOSITION: Hydrogen-treated naphthenic base oil blend plus lard oil, sulfur, sulfurized hydrocarbon, and chlorinated paraffin anti-weld, extreme pressure additives. The blended oil contains not more than 2.0% total sulfur, 2.0% active sulfur, and 0.7% chlorine.

CAS REGISTRY NO.: Mixture

FORMULA: Refined petroleum oil plus additives

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration ofotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 600°F
VAPOR PRESSURE: @ 100°F: Negligible
SPECIFIC GRAVITY: @ 60°F: 0.925
PERCENT VOLATILE: @ 100°F: 0%
APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

POUR PT.: -20°F
VAPOR DENSITY (Air=1): Heavier
SOLUBILITY IN WATER: Negligible
EVAPORATION RATE (Water=1): Very slow

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 350°F
AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

~~**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, trace sulfur oxides and acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide and hydrogen chloride from thermal decomposition.~~

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

~~**RESPIRATORY PROTECTION:** Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3195

REVIEWED BY: B/JF/WDH/ECP/RAR/CWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

BORON OIL COMPANY

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION**CHEMICAL NAME:** Petroleum Oil**CAS REGISTRY NO.:** Mixture**SYNONYMS:** Cutting Oil, non-emulsifiable metal-working oil**CHEMICAL FAMILY:** Hydrocarbons**FORMULA:** Refined petroleum oil plus additives**COMPOSITION:** Hydrogen-treated naphthenic coastal base oil blend plus organic sulfur-containing compound, alkylated phosphorus compound, chlorinated paraffin, and a blend of esters film-strengthening, metal-welding and extreme pressure additives. The blended oil contains not more than 1.0% total sulfur, 1.5% chlorine, and 0.1% phosphorus.**STATEMENT OF HEALTH HAZARD****HAZARD DESCRIPTION:** No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.**EXPOSURE LIMITS:** Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.**EMERGENCY TREATMENT****EFFECTS OF OVEREXPOSURE:** Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.**EMERGENCY AID:** Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF**DANGER OF ASPIRATING OIL INTO LUNGS.** After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.**NOTE TO PHYSICIAN:** Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.**PHYSICAL DATA****BOILING PT.:** (Initial) 570°F**POUR PT.:** -25°F**VAPOR PRESSURE:** @ 100°F: Negligible**VAPOR DENSITY (Air=1):** Heavier**SPECIFIC GRAVITY:** @ 60°F: 0.923**SOLUBILITY IN WATER:** Negligible**PERCENT VOLATILE:** @ 100°F: 0%**EVAPORATION RATE (Water=1):** Very slow**APPEARANCE AND ODOR:** Light colored viscous liquid with lard oil odor.**FIRE AND EXPLOSION HAZARD DATA****FLASH POINT:** (ASTM D-92) 350°F**AUTOIGNITION TEMP.:** Not known**FLAMMABLE LIMITS IN AIR:** Not known (not volatile)**EXTINGUISHING MEDIA:** Carbon dioxide, foam, dry chemicals, sand or earth, water fog.**SPECIAL FIRE-FIGHTING PROCEDURES:** Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides, acid chlorides, phosphorus oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide, hydrogen chloride from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3196

REVIEWED BY: BJF/WDH/SCP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil blend plus an anti-wear/extreme pressure additive, sulfur, and a natural oil blend to mask odor. The blended oil contains not more than 5% total sulfur, 3% active sulfur, and 4% free fatty acid.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTES TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 620°F

POUR PT.: -10°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.939

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 365°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, sulfur oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soap or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: Undated OSHA-20

PRODUCT CODES: P 3177

REVIEWED BY: PUF/WDM/ECP/PAR/CWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil non-emulsifiable, metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil plus lard oil, sulfur, and a natural oil blend to mask odor. The blended oil contains not more than 3% free fatty acid and 2.0% free and combined sulfur.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTICE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 620°F

POUR PT.: -15°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.919

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 345°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, sulfur oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: ~~Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: Undated OSHA-20

PRODUCT CODES: P 3144

REVIEWED BY: P/F/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

BORON OIL COMPANY

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil plus oleic acid anti-weld/film strength lubricity additive.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 550°F

POUR PT.: -50°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.898

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Light colored viscous fluid with lard oil odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 310°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

~~**RESPIRATORY PROTECTION:** Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothin or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: 1/77 OSHA-20

PRODUCT CODES: P 3132

REVIEWED BY: PJH/WDH/ECP/RAR/CWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.
Midland Building
Cleveland, OHIO 44119

CORPORATE EMERGENCY TELEPHONE (Toll Free)

FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives
COMPOSITION: Hydrogen-treated naphthenic coastal base oil blend plus lard oil.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). ~~Avoid unnecessary exposure to liquid oil.~~

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 600°F

POUR PT.: -10°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.908

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Light colored liquid with lard oil odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 370°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

~~RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

ORIGINAL

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: 1/77 OSHA-20

PRODUCT CODES: P 3135

REVIEWED BY: POF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Automotive automatic transmission fluid, ATF, Dexron. ("Dexron" is a trade mark of GM.)

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent-refined paraffinic base oil containing a polymeric dispersant/detergent/anti-oxidant/antiwear additive package including organic sulfur, phosphorus, nitrogen, and boron derivatives. The blended oil contains not more than 0.3% sulfur, 0.02% phosphorus, 0.08% nitrogen, and less than 0.01% boron. Product is dyed red.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO

NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 620°F

POUR PT.: -40°F

VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: 0.870

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Clear, bright, red colored liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 390°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), ~~extreme heat or sources of ignition.~~

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides and acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide and hydrochloric acid from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce a oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: 12/75 OSHA-20

PRODUCT CODES: P 3111

REVIEWED BY: P/J/WDM/ECP/EAR/GWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

ORIGINAL

MARKETED BY:
THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

Midland Building
Cleveland, Ohio 44115

ORIGINAL
(Red)

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives
COMPOSITION: Hydrogen-treated naphthenic base oil blend plus sulfur, sulfurized hydrocarbon, mixed chain fatty acid/ester and chlorinated paraffin anti-weld, anti-wear, extreme pressure additive. The blended oil contains not more than 10% total sulfur, 4% active sulfur, and 0.5% chlorine.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 600°F POUR PT.: 30°F
VAPOR PRESSURE: @ 100°F: Negligible VAPOR DENSITY (Air=1): Heavier
SPECIFIC GRAVITY: @ 60°F: 0.965 SOLUBILITY IN WATER: Negligible
PERCENT VOLATILE: @ 100°F: 0 EVAPORATION RATE (Water=1): Very slow
APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 350°F AUTOIGNITION TEMP.: Not known
FLAMMABLE LIMITS IN AIR: Not known (not volatile)
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides, acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide, hydrogen chloride from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3201

REVIEWED BY: BJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

ORIGINAL

MATERIAL SAFETY DATA SHEET

MARKETED BY:
THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil
SYNONYMS: Emulsifiable glass grinding and polishing coolant
CHEMICAL FAMILY: Hydrocarbons
COMPOSITION: Blend of kerosene and light hydrogen-treated naphthenic coastal base oil (71%) plus lard oil (5%) and a blend of various polyoxyethylated derivatives of sorbitan trioleate and octylphenol as emulsifiers (24%).

CAS REGISTRY NO.: Mixture

FORMULA: Refined petroleum oil plus additives

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed.
EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 570°F
VAPOR PRESSURE: @ 68°F: 2 mm Hg
SPECIFIC GRAVITY: @ 60°F: 0.928
PERCENT VOLATILE: @ 100°F: 0%

APPEARANCE AND ODOR: Clear light colored liquid with mild hydrocarbon or fatty odor. Readily emulsifies with water.

POUR PT.: 10°F

VAPOR DENSITY (Air=1): Heavier than air

SOLUBILITY IN WATER: Forms an emulsion

EVAPORATION RATE (Water=1): Slower than water

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 260°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/20/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3822

REVIEWED BY: PJF/WDH/ECP/RAR/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ORIGINAL
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, ~~hydrogen peroxide~~, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE

DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/20/81

REPLACING DATE OF: Undated OSHA-20

PRODUCT CODES: P 3325, P 3326

REVIEWED BY: PJF/MDM/ECP/RAR/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil
SYNONYMS: Fast quenching oil, metal heat-treating oil
CHEMICAL FAMILY: Hydrocarbons
COMPOSITION: Dewaxed clay contacted inhibited light oil plus heavy paraffin petroleum resins for viscosity and heat transfer control. The oil contains polynuclear aromatic hydrocarbons (circa 15%).

CAS REGISTRY NO.: Mixture

FORMULA: Refined petroleum oil plus additives

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil or vapors from hot oil during use.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 550
VAPOR PRESSURE: @ 100°F: Negligible
SPECIFIC GRAVITY: @ 60°F: 0.871
PERCENT VOLATILE: @ 100°F: 0%
APPEARANCE AND ODOR: Dark, low viscosity liquid with oil odor.

POUR PT.: 0°F
VAPOR DENSITY (Air=1): Heavier than air
SOLUBILITY IN WATER: Negligible
EVAPORATION RATE (Water=1): Very slow

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 325°F
FLAMMABLE LIMITS IN AIR: Not known
AUTOIGNITION TEMP.: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

HAZARD PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources. Quenching of hot metal may generate volatile decomposition products. Ventilation should be adequate to avoid continued inhalation of or contact with fumes during use.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/20/81

REPLACING DATE OF: Undated OSHA-20

PRODUCT CODES: P 3146, P 9345

REVIEWED BY: PJF/WDH/ECF/RAR/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.
Midland Building

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture
SYNONYMS: Compressor cylinder and crankcase lubricating oil
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives
COMPOSITION: Hydrogen-treated naphthenic coastal base oil (99%) plus some calcium sulfonate, zinc dialkyl dithiophosphate, and polyoxyethylated nonylphenol additives. Blended product contains not more than 0.1% zinc, 0.1% phosphorus, 0.1% calcium.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 570°F POUR PT.: (A68) -10°F; (A100) -5°F
VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg VAPOR DENSITY (Air=1): Heavier than air
SPECIFIC GRAVITY: @ 60°F: 0.927 to 0.931 SOLUBILITY IN WATER: Negligible
PERCENT VOLATILE: @ 100°F: 0.7 EVAPORATION RATE (Water=1): Very slow
APPEARANCE AND ODOR: Clear light colored liquid with hydrocarbon odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) (A68) 370°F; (A100) 380°F AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL
(200)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE

DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/20/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3094, P 3091

REVIEWED BY: PJF/WDM/ECP/RAR/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.

EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: <0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.876-0.893

SOLUBILITY IN WATER: Slight

PERCENT VOLATILE: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark orange clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 425°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

MATERIAL SAFETY DATA SHEET - AUTRAN DEXRON II

Page Two

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

~~CONDITIONS TO AVOID:~~ ~~Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.~~

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur oxides from combustion. Reactive volatile hydrocarbons and traces of hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/18/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3602, P 3609

REVIEWED BY: PJF/WM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ORIGINAL

STABILITY: Stable under normal conditions
CONDITIONS TO AVOID: CHEMICAL REACTIVITY

acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

Hazard Class: None

OPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

ACARD: None

DC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast and, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

SION DATE: 11/5/81

AGING DATE OF: Undated OSHA-20 Form

UCT CODES: P 3513, P 3594

REVIEWED BY: PJF/NDM/ECP/RAR/CWS/WJW/SMD
APPROVED: 
TITLE: Product Safety Coordinator

INATIVE TO OSHA 20 FORM

ORIGINAL
10/1/81

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

PIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/6/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3436, P 3437

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Crankcase Oil, Internal combustion engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil plus dibutyl paracresol oxidation inhibitor and oleoyl sarcosine surfactant rust inhibitor.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 700°F

POUR PT.: 5°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.878

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark, clear and bright liquid with petroleum odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 470°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

~~CONDITIONS TO AVOID:~~ Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/6/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3379

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:
 THE STANDARD OIL COMPANY (OHIO)
 BORON OIL COMPANY
 BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
 FROM WITHIN OHIO: 800-362-8059
 FROM OUTSIDE OHIO: 800-321-8642
 CHEMTREC (CMA): 800-424-9300

Midland Building
 Cleveland, Ohio 44115

ORIGINAL
 (Red)

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture
 SYNONYMS: Gear lubricants, automotive gear lubricants
 CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives MOL. WT.:
 COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate copolymer pour de-
 pressant, antifoam and a sulfur-phosphorus multi-purpose additive. The blended oil contains
 not more than 3.0% sulfur and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, ir-
 ritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneu-
 monitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR
 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irrita-
 tion, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing
 liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may
 cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect
 may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart
 and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and
 water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO
 NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vom-
 iting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPO-
 SURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vom-
 iting should not be induced, and gastric lavage should be undertaken with consideration of
 endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 650°F	POUR PT.*: -20°F/0°F/0°F
VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg	VAPOR DENSITY (Air=1): Heavier than air
SPECIFIC GRAVITY: @ 60°F: 0.883 to 0.902	SOLUBILITY IN WATER: Negligible
PERCENT VOLATILE: @ 100°F: 0%	EVAPORATION RATE (Water=1): Very slow
APPEARANCE AND ODOR: Pale yellow to orange, orange-red to black (140) liquid with "petroleum oil" odor.	

*Property listed in order 80/90/140

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT*: (ASTM D-92) 400°F/400°F/420°F AUTOIGNITION TEMP.: Not known
 FLAMMABLE LIMITS IN AIR: Not known
 EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.
 SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protec-
 tion. Do not spray water directly into fire to avoid foaming or spread of floating oil.
 Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA
 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).
 UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: ~~Stable under normal conditions. Not chemically reactive.~~

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and trace sulfur dioxide from combustion. Reactive volatile hydrocarbons and possible trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/6/81

REPLACING DATE OF: 4/80 OSHA-20

PRODUCT CODES: P 3345, P 3346, P 3339

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

SYNONYMS: Gear Lubricants

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives MOL. WT.:

COMPOSITION: Solvent refined paraffinic base oil blend plus antifoam and a sulfur-phosphorus multi-purpose additive. The blended oil contains not more than 3.0% sulfur and 0.2% phosphorus.

CAS REGISTRY NO.: Mixture

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTICE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 655°F

VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg

SPECIFIC GRAVITY: @ 60°F: 0.890 to 0.933

PERCENT VOLATILE: @ 100°F: 0%

APPEARANCE AND ODOR: Pale yellow to orange (85, 125); orange-red to black (170-500) liquid with "petroleum oil" odor.

*Property listed in order 80/125/170/250/500

POUR PT.*: -15°F/0°F/5°F/10°F/35°F

VAPOR DENSITY (Air=1): Heavier than air

SOLUBILITY IN WATER: Negligible

EVAPORATION RATE (Water=1): Very slow

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 400°F or above

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL
(2001)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and trace sulfur dioxide from combustion. Reactive volatile hydrocarbons and trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

POSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/6/81

REPLACING DATE OF: 4/80 OSHA-20

PRODUCT CODES: P 3341, P 3338, P 3342,
P 3340, P 9681

REVIEWED BY: PJF/WDH/ECP/RAR/CWS/WJW/SMB

APPROVED: 

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen treated naphthenic coastal base oil plus lard oil, sulfur, methyl oleate, polyisobutylene, and chlorinated paraffin extreme pressure additive. The blended oil contains not more than 3.0% free and combined sulfur and 3.0% chlorine.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 550°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.924

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 315°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Fumes from fire may contain irritating sulfur oxides, corrosive hydrogen chloride, and traces of toxic phosgene (carbonyl chloride).

(200)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves, or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: Undated OSHA-20 Form

PRODUCT CODES: P 3594

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend plus alkyl zinc dithiophosphate, magnesium phenate, calcium phenate, ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% calcium, 0.2% zinc, 0.1% magnesium and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. **NOTE:** USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.

EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: **DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS.** Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F

POUR PT.: -20°F to +10°F

VAPOR PRESSURE: @ 100°F: 0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.876 to 0.901

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark red, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 430°F to 475°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

~~STABILITY: Stable under normal conditions.~~

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 12/80

PRODUCT CODES: In ascending order of grade:

P 3497, P 3546, P 3498, P 3547, P 3502, P 3548, P3499, P 3549, P 3500, P 3545

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend plus ethylene-propylene copolymer viscosity index improver and alkyl zinc dithiophosphate, magnesium phenate, calcium phenate ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% calcium, 0.2% zinc, 0.1% magnesium and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.

EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced; and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: 0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.876 to 0.893

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark red, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 440°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: Original Issue

PRODUCT CODES: P 3542, P 3554

REVIEWED BY: RJF/WM/ECR/RAR/CWS/WJW

APPROVED:

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

Midland Building
Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend plus alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. ~~NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.~~
EXPOSURE LIMITS: Oil mist: 5 mg/m³ (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F

POUR PT.: -20 to 0°F

VAPOR PRESSURE: @ 100°F: <0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.876-0.892

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Orange to dark orange clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 420°F to 450°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 1/18/79

PRODUCT CODES: In ascending order of grade:

P 3515, P 3550, P 3516, P 3551, P 3517, P 3552, P 3518, P 3553

REVIEWED BY: P.J.F./WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:
THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.
Midland Building
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture
SYNONYMS: Lubricating oil, crankcase oil, engine oil
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.
EXPOSURE LIMITS: Oil mist: 5 mg/m³ (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F POUR PT.: -25°F
VAPOR PRESSURE: @ 100°F: <0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor
SPECIFIC GRAVITY: @ 60°F: 0.872-0.893 SOLUBILITY IN WATER: Negligible
PERCENT VOLATILE: 0% EVAPORATION RATE (Water=1): Very slow
APPEARANCE AND ODOR: Dark orange, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 410°F AUTOIGNITION TEMP.: Not known
FLAMMABLE LIMITS IN AIR: Not known
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

MATERIAL SAFETY DATA SHEET - VANELLUS SUPER DF 10W30 MOTOR OIL

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CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 1/18/79

PRODUCT CODES: P 3510, P 3556

REVIEWED BY: PJF/NDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

ORIGINAL

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (800-PRC-1122)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. ~~Danger of serious pneumonitis from aspiration into lungs if swallowed.~~ NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.

EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: <0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.876-0.893

SOLUBILITY IN WATER: Slight

PERCENT VOLATILE: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark orange clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 425°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

MATERIAL SAFETY DATA SHEET

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.

EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: <0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.872-0.893

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark orange, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 410°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL

MATERIAL SAFETY DATA SHEET - EXTRA DUTY 10W30 MOTOR OIL

Page Two

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 1/18/79

PRODUCT CODES: P 3556

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.
Midland Building
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture
SYNONYMS: Lubricating oil, crankcase oil, engine oil
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.
EXPOSURE LIMITS: Oil mist: 5 mg/m³ (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F POUR PT.: -25°F
VAPOR PRESSURE: @ 100°F: <0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor
SPECIFIC GRAVITY: @ 60°F: 0.876-0.893 SOLUBILITY IN WATER: Negligible
PERCENT VOLATILE: @ 100°F: 0% EVAPORATION RATE (Water=1): Very slow
APPEARANCE AND ODOR: Dark orange, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 410°F AUTOIGNITION TEMP.: Not known
FLAMMABLE LIMITS IN AIR: Not known
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: ~~Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure.~~ Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 11/18/79

PRODUCT CODES: P 3510, P 3556

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

BORON OIL COMPANY

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300 ORIGINAL

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Compounded steam cylinder oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil and cylinder stock blend plus acidless tallow oil.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTES TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 870°F

POUR PT.: 30°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.925

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark colored clear and bright viscous oil with hydrocarbon or faint fatty odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 540°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

Letterette

TO	SID LEVY	LOCATION	METRO CONTAINER
FROM	J P SIBOLD	LOCATION	BP OIL INC.
SUBJECT	DRUMMED PRODUCTS - MSDS FORMS.		DATE 11/4/85

MESSAGE

SID:

HERE IS THE INFORMATION WHICH YOU REQUESTED. WE EXPECT THE MSDS FORMS TO BE UPDATED WITHIN THE NEXT TWO WEEKS. WE'LL SEND A COPY TO YOU WHEN THEY COME IN. ITEMS WITH THE SAME "BRND CODE" SHARE A COMMON MSDS. GIVE A CALL TO MIKE HAFICH (499-7020) OR ME (499-7377) IF YOU HAVE QUESTIONS.

SIGNATURE

John

REPLY

CLV-1204

DATE

PERSON RECEIVING COMMUNICATION - RETAIN THIS COPY FOR YOUR RECORD

ORIGINAL

MATERIAL SAFETY DATA SHEET**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)
BORON OIL COMPANY
BP OIL INC.

Midland Building
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)
FROM WITHIN OHIO: 800-362-8059
FROM OUTSIDE OHIO: 800-321-8642
CHEMTREC (CMA): 800-424-9300

ORIGINAL
10/24

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Gas Engine Oils, two or four cycle engine oil for engines fueled with gas, diesel fuel, or dual fuels

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver, alkyl zinc dithiophosphate anti-wear agent and ashless amine-type polymeric dispersant. The blended oil contains not more than 0.2% zinc, and 0.4% sulfated ash.

STATEMENT OF HEALTH HAZARD

~~HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.~~

EXPOSURE LIMITS: Oil mist: 5 mg/m³ TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F; 802°F

POUR PT.: (AD69) 0°F; (AD79) 0°F

VAPOR PRESSURE: @ 100°F: Less than 0.1 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.881 - 0.884

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Pale yellow to dark orange clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 450°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

10/01/85
07:05

CUSTOMER ORDER/WORK ORDER BACKLOG BY BLEND-CODE

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PRODUCT	BLEND CODE	DESCRIPTION	PRIMARY LOCATION
0460	340	921464 GEAR OIL EP-140	2 1/2 220212
0308	340	XGEAREP 250	400LB 050471
0008	341	XGEAREP 85	400LB 050421
2028	342	XGEAREP 170	400LB 040501
7028	345	XGEAREP 80	400LB 060391
0410	346	921252 GEAR OIL EP-90	KIT 030302
6140	346	921233 GEAR OIL EP-90	PAIL 040011
0028	346	XGEAREP 90	400LB 030071
0140	346	GEAREP 90	KIT 030362
3640	346	GEAREP 90	PAIL 030022
1028	347	921460 GEAR OIL P-90	2 1/2 NL0241
2028	348	XENERGOL GR XP-150	55LIR 050281
1340	348	XENERGOL GR XP-220	55LIR 050301
9028	348	921470 MILKING MACH OIL	2 1/2 220035
9320	348	XENERGOL HLP-68	55LIR 030271
2028	348	ENERGOL HLP-68	5GAL 040231
7028	348	XENERGOL OEM 30	55LIR 030211
9320	348	XENERGOL HL-32	55LIR 030132
0028	348	ENERGOL HL-32	5GAL 030122
9320	348	WM PENN HYDR ISO 32	55LIR 050511
9028	348	WM PENN HYDR ISO 32	5GAL 040241
9028	348	XENERGOL HL-46	55LIR 040521
9028	348	XENERGOL HL-68	55LIR 030191
0340	348	921490 HYDRAULIC ROF	2 1/2 NL0261
9028	348	XENERGOL HLP-32	55LIR 030231
9320	348	ENERGOL HLP-32	5GAL 030062
9028	348	921552 HYDRAULIC ROF	55LIR 050211
9028	348	XENERGOL HLP-46	55LIR 030251
0028	348	ENERGOL HLP-46	5GAL 040171
9028	348	921555 HYDRAULIC FLU UF	55LIR 040041
9320	348	XELDRAN UTH	55LIR 030051
9340	348	ELDRAN UTH	5GAL 040092
9028	348	921480 HYDRAULIC FLU UF	2 1/2 210444
9140	348	XENERGOL HL-220	55LIR 050341
660	348	921204 REG GEAR OIL 90	PAIL 200251
9028	348	921450 REG GEAR OIL 90	2 1/2 210184
9028	348	XENERGOL HLP-22	55LIR 030551
9028	348	XENERGOL HLP-100	55LIR 040241

ORIGINAL
(Red)

DATE: 10/01/85
TIME: 07:05

PACKAGE INVENTORY
CUSTOMER ORDER/WORK ORDER BACKLOG BY BLEND-CODE

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PRODUCT	BLEND CODE	DESCRIPTION	PRIMARY LOCATION
58 93020	3423	ENERGOL HLP-100	58AL 200211
58 93020	3423	ENERGOL HLP-150	55LIB 040461
58 93020	3423	ENERGOL HLP-150	58AL 200291
58 96020	3426	ENERGOL HLP-460	55LIB 060211
58 96020	3426	921454 REG OPAK OIL 100 P 1/2	ML0321
58 97020	3427	ENERGOL HLP-680	55LIB 040181
58 98020	3431	ENERGOL HLP-10	55LIB 060111
58 98020	3432	ENERGOL HL-100	55LIB 040201
58 98020	3436	ENERGOL DL-MP 30	55LIB 030311
58 98020	3437	ENERGOL DL-MP 40	55LIB 030491
58 98020	3443	ENERGOL IC-HF 303	55LIB 300093
58 98020	3444	ENERGOL IC-HF 304	55LIB 300211
58 98020	3445	ENERGOL HLP-2	55LIB 030031
58 98020	3451	ENERGOL HLP-220	55LIB 050501
58 98020	3451	ENERGOL HLP-220	58AL 200411
58 98020	3455	ENERGOL IC-HF 253	55LIB 050112
58 98020	3456	ENERGOL IC-HF 254	55LIB 040161
58 98020	3460	ENERGOL IC-HF 40	55LIB 050372
58 98020	3460	BARRON ALL BEARON 10W/30 12/101	020491
58 98020	3461	NITREX MPG 5W/40 24/101	250091
58 98020	3465	VANELLUS MCS-3 50	55LIB 060291
58 98020	3466	921521 DIESEL 10	55LIB 050361
58 98020	3466	VANELLUS MCS-3 10	55LIB 030431
58 98020	3466	VANELLUS MCS-3 10	58AL 040211
58 98020	3466	VANELLUS MCS-3 10	24/101 020341
58 98020	3466	921530 DIESEL 10	24/101 210091
58 98020	3467	VANELLUS MCS-3 20	55LIB 040281
58 98020	3467	VANELLUS MCS-3 20	24/101 020301
58 98020	3468	VANELLUS MCS-3 30	55LIB 030332
58 98020	3468	VANELLUS MCS-3 30	58AL 030101
58 98020	3468	VANELLUS MCS-3 30	24/101 020253
58 98020	3468	921530 DIESEL 30	24/101 020402
58 98020	3468	921523 DIESEL 30	55LIB 040261
58 98020	3468	921436 DIESEL 30	2 1/2 210262
58 98020	3468	WM PENN SPECIAL 40 30	55LIB 050431
58 98020	3468	WM PENN SPECIAL 40 30	58AL 200151
58 98020	3468	WM PENN SPECIAL 40 30	24/101 DEMAND
58 98020	3469	VANELLUS MCS-3 40	55LIB 040101

ORIGINAL

ORIGINAL
(Red)

10/01/8
07:05

PACKAGE INVENTORY
CUSTOMER OR WORK ORDER BACKLOG BY BLEND-CODE

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PRODUCT	BLEND CODE	DESCRIPTION	PRIMARY LOCATION
4 3400	3550	VANELLUS MG6-3 40	24/10T 020162
4 7028	3550	VANELLUS SUP DF 40	55LIB 060351
4 8028	3551	VANELLUS SUP DF 40	55LIB 040301
4 9028	3552	VANELLUS SUP DF 40	55LIB 030391
4 9440	3552	VANELLUS SUP DF 40	24/10T 020312
4 2440	3552	921127 PREMIUM M 30	24/10T 020572
4 3028	3552	921333 PREMIUM M 30	55LIB 040361
4 4340	3552	921414 PREMIUM M 30	2 1/2 210381
4 0028	3553	VANELLUS SUP DF 40	55LIB 050142
10 7028	3553	921334 PREMIUM M 40	55LIB 050261
12 5440	3553	921418 PREMIUM M 40	2 1/2 NL0301
10 2028	3554	921525 DIESEL 15W/40	55LIB 060052
10 4440	3554	921534 DIESEL 15W/40	24/10T 210073
10 1028	3554	VANELLUS MG 15W/40	55LIB 030471
10 4440	3554	VANELLUS MG 15W/40	6/1PL NR0211
10 4440	3554	VANELLUS MG 15W/40	24/10T 230341
1 3440	3554	921431 DIESEL 15W/40	6/1PL NR0171
0 4440	3554	921432 DIESEL 15W/40	2 1/2 NL0281
3 0028	3554	WM 4040 SUPER MO 15W/40	24/10T 230362
3 4440	3554	WM PENN SUPREME 15W/40	55LIB 03047R
5 4440	3554	WM PENN SUPREME 15W/40	24/10T 230362
0 028	3556	EXTRA DUTY 10W/30	24/10T 020073
0 4440	3556	VANELLUS SUP DF 10W/30	55LIB 050541
0 028	3556	VANELLUS SUP DF 10W/30	24/10T 020352
0 4440	3556	921343 AG CT 8 T 10W/30	55LIB 050411
0 340	3556	921123 AG CT 8 T 10W/30	24/10T 020532
1 4440	3556	921420 AG CT 8 T 10W/30	2 1/2 210342
3 028	3556	WP1002 PREM MO 10W/30	24/10T 230182
3 4440	3556	WM PENN PREM MO 10W/30	55LIB 050101
0 4440	3556	WM PENN PREM MO 10W/30	24/10T 230182
0 340	3556	921344 SUPER DBL 10W/30	24/10T 020092
0 028	3556	921346 SUPER DBL 10W/30	2 1/2 230256
0 028	3556	921347 SUPER DBL 10W/30	55LIB 040141
12 4440	3556	VANELLUS C-EXTRA 10W/30	55LIB 050032
12 028	3556	VANELLUS C-EXTRA 10W/30	24/10T 020491
12 4440	3556	VANELLUS C-EXTRA 15W/40	55LIB 030411
12 330	3556	VANELLUS C-EXTRA 15W/40	24/10T 020122
		921401 SUPER PREM 10/40	6/1PL NR0191

ORIGINAL
FILED

DATE: 10/01/85
TIME: 07:05

CUSTOMER

PACKAGE INVENTORY
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ORIGINAL

ORIGINAL
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PRODUCT	BLEND CODE	DESCRIPTION	PRIMARY LOCATION
021028	3504	921002 SUPER PRE 10/40 2 1/2	220146
021028	3504	SUPER VIS 10W/40 55LIR	040401
021028	3504	SUPER VIS 10W/40 24/10T	020013
021028	3504	921111 SUPER PRE 10/40 24/10T	020133
021028	3504	921339 SUPER PRE 10/40 55LIR	040121
021028	3504	VANELLUS SUP OF 0W/40 55LIR	030291
021028	3504	VANELLUS SUP OF 0W/40 24/10T	020193
021028	3504	VANELLUS SUP OF 0W/40 12/10T	230444
021028	3504	WP1001 PREM MO 1 W/40 55LIR	050561
021028	3504	WP1000 PREM MO 1 W/40 24/10T	230028
021028	3504	WP1040 PREM MO 1 W/40 4/5PL	NR0092
021028	3504	WM PENN PREM MO 0W/40 55LIR	050561
021028	3504	WM PENN PREM MO 0W/40 24/10T	230028
021028	3504	WM PENN PREM MO 0W/40 4/5PL	NR0092
021028	3600	HYDRAULIC TF-C3 55LIR	040441
021028	3600	WM PENN UNIVERSAL ATF 24/10T	DEMAND
021028	3600	WM PENN UNIVERSAL ATF 55LIR	DEMAND
021028	3600	AUTRAN UNIVERSAL ATF 55LIR	030531
021028	3600	AUTRAN UNIVERSAL ATF 24/10T	020192
021028	3600	AUTRAN UNIVERSAL ATF 12/10T	230202
021028	3600	921543 DEXRON II ATF 55LIR	050451
021028	3600	921540 DEXRON II ATF 24/10T	020302
021028	3801	921440 UTILITY SAE 10 2 1/2	010121
021028	3801	921442 UTILITY SAE 20 2 1/2	210021
021028	3802	921143 UTILITY SAE 30 24/10T	210011
021028	3802	921163 UTILITY SAE 30 55LIR	050151
021028	3802	921444 UTILITY SAE 30 2 1/2	210302
021028	3803	921446 UTILITY SAE 40 2 1/2	220134
021028	3802	GLASSGRIND OIL 55LIR	030371
021028	3804	STAYROL 77 55LIR	060251
021028	3804	STAYROL 77 56AL	200151
021028	7100	LUBE SLOP 55LIR	FIFLO
021028	8002	ENERGOL OE-22 55LIR	050491
021028	9004	FACTRAN EP-1 400LN	050171
021028	9004	FACTRAN EP-1 KIT	030301
021028	9004	FACTRAN EP-1 PAIL	040151
021028	9006	FACTRAN EP-2 400LN	050461
021028	9006	FACTRAN EP-2 KIT	040191

8 10/01/85
8 07:05

CUSTOMER ORDER/WORK ORDER BACKLOG BY

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PRODUCT	BLND CODE	DESCRIPTION	PRIMARY LOCATION
7 07138	9006	FACTRAN EP-2	PAIL 040071
7 07616	9006	FACTRAN EP-2	4/10PK 200012
7 07620	9006	FACTRAN EP-2	CART 200012
7 06138	9038	GEAREP 06	PAIL 200091
7 06600	9038	GEAREP 06	25/110Z DEMAND
5 05430	9044	BP WINDSHIELD WASHER FLUID 6/1	DEMAND
9 04028	9055	ATLAS ANTI-FREEZE	55LIR DEMAND
9 04430	9055	ATLAS ANTI-FREEZE	6/4PL NL0164
12 00028	9055	ATLAS ANTI-FREEZE	24/10T 200483
12 00430	9055	BP ANTI-FREEZE COOLANT	55LIR 030451
12 00430	9055	BP ANTI-FREEZE COOLANT	6/4PL NL0063
12 00028	9055	WM PENN ANTI-FREEZE	6/1CAL DEMAND
12 00028	9055	WM PENN ANTI-FREEZE	55LIR DEMAND
12 00430	9055	CRUISEMASTER ANTI-FREEZE	55LIR 01
12 00440	9055	CRUISEMASTER ANTI-FREEZE	6/4PL 01
3 01110	9072	ATLAS A.F. (WYANDOTT)	24/10T DEMAND
3 01130	9072	BEARING GARD LT-0	KIT 060061
3 01100	9073	BEARING GARD LT-0	PAIL 060621
3 01130	9073	BEARING GARD MK-1	400LB 06060M
3 01028	9095	BEARING GARD MK-1	PAIL 06062M
3 01040	9095	GEAREP 500	400LB 20000C
3 01028	9095	GEAREP 500	PAIL 06044M
3 01038	9095	WP4019 SPC WHEEL RING	12/1LB 220045
10 00028	9128	WP4021 SPC WHEEL RING	PAIL 060422
0 00028	9130	BP DIELECTRIC 180	55LIR 030171
0 00028	9130	BP DIELECTRIC 200	55LIR 030511
0 00028	9210	FACTOKOTE 392	55LIR 20000A
0 00028	9210	FACTOPURF NF-90	55LIR 040541
0 00028	9210	FACTOPURF USP-1A5	55LIR 20000A
0 00028	9210	MINERAL SEAL OIL	55LIR 030011
0 00028	9350	ENERGOL HL-22	55LIR 050071
0 00070	9450	BORON CLF	12/10T 020111
0 00090	9450	BORON CLF PL	6 1/2 020242
0 00070	9450	SHORRITE CLF PL	12/10T NL0021
0 00028	9450	7C'S 2 CYCLE ENG OIL	55LIR 300251
0 00070	9450	7C'S 2 CYCLE ENG OIL	12/10T NR0072
0 00000	9450	FACTOGARD	400LB 060488
0 00010	9450	FACTOGARD	KIT 060191

ORIGINAL
(H&M)

T 8 10/01/8
M 8 07:05

PACKAGE INVENTORY
CUSTOMER ORDER/WORK ORDER BACKLOG BY BLEND-CODE

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PRODUCT	BLEND CODE	DESCRIPTION	PRIMARY LOCATION
7 1138	9845	FACTOGARD	PAIL 06060T
5 1390	9870	WP3012 BRAKE FLUID	24/12 220122
5 2060	9870	WP3013 BRAKE FLUID	6/1 220044
5 6004	9870	BP BRAKE FLUID 450	4/1GAL DEMAND
5 7012	9870	BP BRAKE FLUID 450	12/1207 DEMAND
7 7180	9838	ENERGREASE MM-EP-2	PAIL 200271
5 0100	9876	BEARING GARD-2	400LB 060371
5 0110	9876	BEARING GARD-2	KIT 030242
5 0138	9876	BEARING GARD-2	PAIL 030201
5 0616	9876	BEARING GARD-2	4/10PK 20007R
5 0620	9876	BEARING GARD-2	CART 20007R
5 0631	9876	BEARING GARD-2	3/10PK 200071
7 9320	9891	ENERGOL LPT-F-46	5GAL 06060H
7 0110	9706	FACTRAN EP-15	KIT 060024
7 0620	9706	FACTRAN EP-15	25/14.5 060024
5 2650	9717	WM PFNN SPEC WHL BRG	6/5LB DEMAND
5 2760	9717	WP4020 SPR WHEEL BRG	6/5LB 220045
5 3640	9717	WM PFNN SPEC WHL BRG	12/1LB DEMAND
5 0138	9717	WM PFNN SPEC WHL BRG	5GAL 060422
6 0470	9763	GEAREP 85W/90X14	12/10T NA0031
10 028	9763	GEAREP 85W/90/14	400LB 060321
1 028	9909	ENERGOL DC-460	55LIT 300101 - OBSOLETE
1 320	9909	ENERGOL MF-CC-22	5GAL 320021
1 028	9909	ENERGOL THH 68 ISO	55LIT 050041
1 028	9909	ENERGOL THH X7	55LIT 310311
1 320	9909	ENERGOL THH 77	5GAL 06056T
1 028	9909	ENERGOL GR XP 150 ISO	55LIT 300161
1 320	9909	ENERGOL GR XP 150 ISO	5GAL 200391
1 028	9909	ENERGOL GR 220-XB ISO	55LIT 300151
1 320	9909	ENERGOL GR 220-XB ISO	5GAL 200331
3 028	9909	BP ENERGOL SHF-LT 15	55LIT 310351
3 320	9909	BP ENERGOL SHF-LT 15	5 GAL 060404
3 028	9909	BP ENERGOL DS 154	55LIT 050401
3 028	9909	BP ENERGOL DS 154	55LIT 300241
3 028	9909	BP BARTRAN 15	55LIT 300261
3 028	9909	BP BARTRAN 32	55LIT 300011
3 028	9909	BP BARTRAN 46	55LIT 330221
3 028	9909	BP BARTRAN 68	55LIT 0403A1

ORIGINAL

ORIGINAL
07/05/86

10/01/85
07:05

CUSTOMER

PACKAGE INVENTORY
ER/WORK ORDER BACKLOG BY BLEND-CODE

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PRODUCT	BLEND CODE	DESCRIPTION	PRIMARY LOCATION
93A028	9999	HP BARTAN 100	55LIR 310081
705180	9999	ENERGREASE OG	PATL 200311
705180	9999	ENERGREASE MM-EP-0	PATL 200351
70571AD	9999	HP ENERPOL WRP	SGAL 060584

NUMBER OF PRODUCTS ON BACKLOG = 270

ORIGINAL
(Red)

07:05

CUSTOMER

PACKAGE INVENTORY
R/NDK ORDER BACKLOG BY DEND-CODEPAGE:
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ORIGINAL

PRODUCT	ALEND CODE	DESCRIPTION	PRIMARY LOCATION
06028	338	FACTOIL 39	55LIB 040341
23028	338	CD 101	55LIB 530241
68028	3391	KELDORAN A-100	55LIB 040481
60028	3394	KELDORAN A-68	55LIB 060132
74028	3311	KCILONA 19-A	55LIB 060172
24028	3332	KFACTOKUT A-50-C	55LIB 0400A1
88028	3335	KFACTOKUT L-2	55LIB 060031
61028	3344	KSEVORA 37	55LIB 040061
7028	3346	KENERGOL QA-20	55LIB 040561
5028	3377	KSEVORA 53-A	55LIB 040221
55028	3380	KSULKLEER 102-S	55LIB 050231
5320	3380	SULKLEER 102-S	55LIB 050231
1028	3382	SULKLEER 19-E	55LIB 050251
2028	3385	KSULKLEER 30	55LIB 050271
7028	3395	KSULKLEER 163-A	55LIB 050291
8028	3396	KSULKLEER 177-X	55LIB 050311
9028	3301	KSULKLEER 723	55LIB 050221
1028	3342	ENERGOL CLO 50-M	55LIB 030092
4028	3388	KENERGOL DC-600	55LIB 050331
4320	3388	ENERGOL DC-600	55LIB 050331
7028	3379	ELDORAN 4	55LIB 050081
6028	3383	KENERGOL HP-6A	55LIB 050532
6320	3383	ENERGOL HP-6A	55LIB 050532
7028	3384	KENERGOL HP-100	55LIB 060312
7320	3384	ENERGOL HP-100	55LIB 060312
8028	3385	KENERGOL HP-220	55LIB 040321
5028	3388	KENERGOL CS-150-M	55LIB 050061
2028	3325	FACTON AD-69	55LIB 050121
8028	3326	FACTON AD-79	55LIB 050321
470	3327	921504 SEA/BAW 0 L	12/10T NR0151
8028	3327	VGEAREP 80W/140	400LB 050181
110	3327	GEAREP 80W/140	KIT 040252
140	3327	GEAREP 80W/140	PATL 040292
028	3328	VGEAREP 125	400LB 050201
140	3328	GEAREP 125	PATL 200171
028	3328	VGEAREP 140	400LB 050241
110	3329	GEAREP 140	KIT 030162
140	3329	GEAREP 140	PATL 040031